

Dive Rite 3000-2 Regulator Service Manual



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This manual is intended as a guide for trained and certified Dive Rite regulator technicians. Possession of this guide does not qualify any individual to service Dive Rite regulator breathing systems. Improper servicing can lead to serious injury or death. Only original Dive Rite parts are to be used in the servicing of Dive Rite regulators. Any individual who services a Dive Rite regulator without being a certified Dive Rite technician and is not currently employed by an Active Dive Rite Dealership does so at his own risk. Warranty is void for any regulator that is serviced by an unqualified individual.

Warning

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Dive Rite 3000-2

Balanced Second Stage

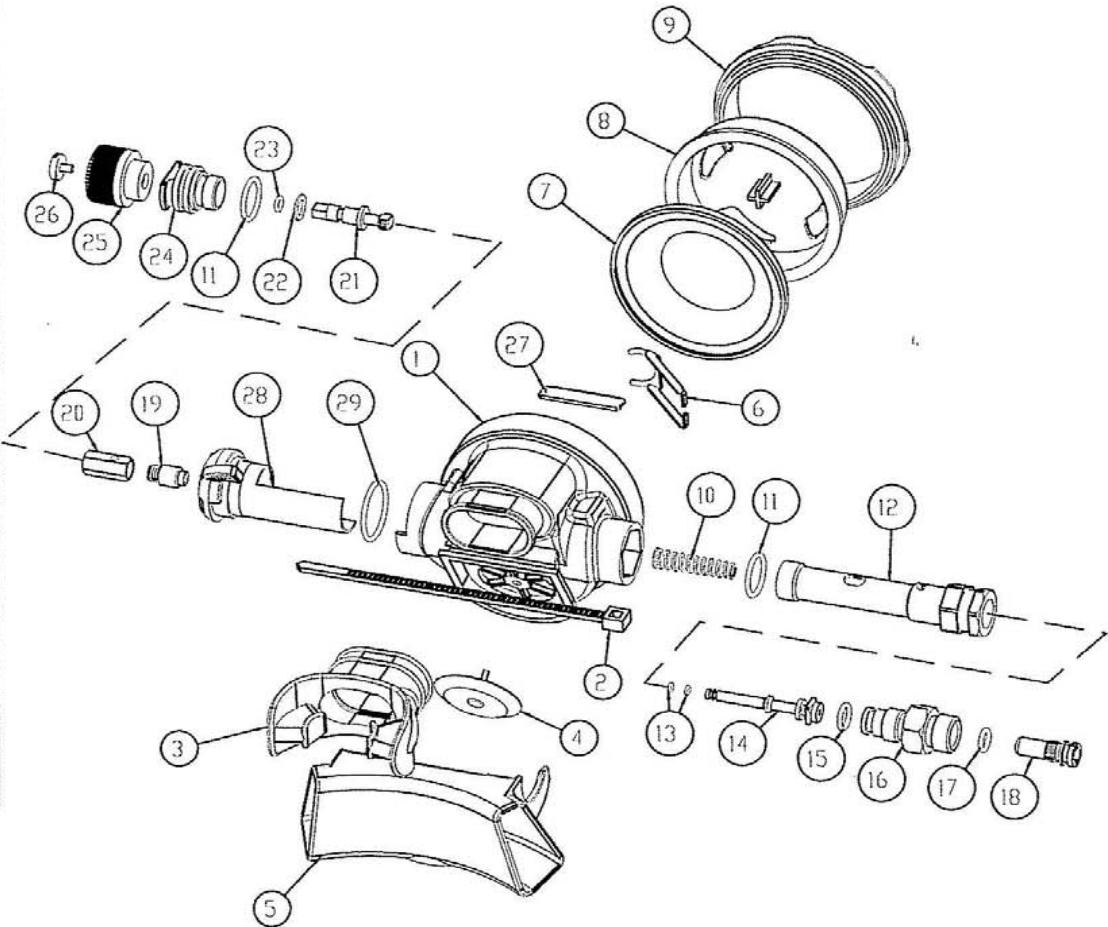


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RG3000-2 SECOND STAGE

No.	DESCRIPTION	NUMBER	QUANTITY
1	SECOND STAGE BODY	RG1400SL	1
2	TIE WRAP	RG1273	1
3	MOUTHPIECE	RG1250	1
4	EXHAUST VALVE	RG1251	1
5	EXHAUST TEE	RG1401	1
6	LEVER ARM	RG1402	1
7	DIAPHRAGM	RG1252	1
8	SECOND STAGE COVER	RG1218	1
9	COVER RING	RG1219	1
10	SPRING	RG1403	1
11	O-RING	RG1404	2
12	ADJUSTMENT TUBE	RG1405	1
13	O-RING	RG1406	2
14	INLET NIPPLE	RG1407	1
15	O-RING	RG1409	1
16	INLET SCREW	RG1410	1
17	O-RING	RG1411	1
18	ORIFICE	RG1412	1
19	INLET NIPPLE BOOT	ASSEMBLED WITH #20	1
20	CYLINDER	RG1414	1
21	ADJUSTMENT SCREW	RG1413	1
22	TEFLON WASHER	RG1415	1
23	O-RING	RG1416	1
24	ADJUSTMENT TUBE CAP	RG1417	1
25	ADJUSTMENT KNOB	RG1418	1
26	ADJ. KNOB SCREW	RG1419	1
27	DEFLECTOR	RG1424SL	1
28	VENTURI	RG1427SL	1
29	O-RING	RG1428SL	1



- 1) Remove the LP hose using an 11/16 inch wrench, a second wrench may be necessary to hold the second stage stationary.



- 2) Remove the two "O" rings from the LP hose.



3) After cutting the cable tie, remove the mouthpiece.



4) Unscrew the locking ring
and remove the cover and diaphragm.





5) Remove the lever arm.

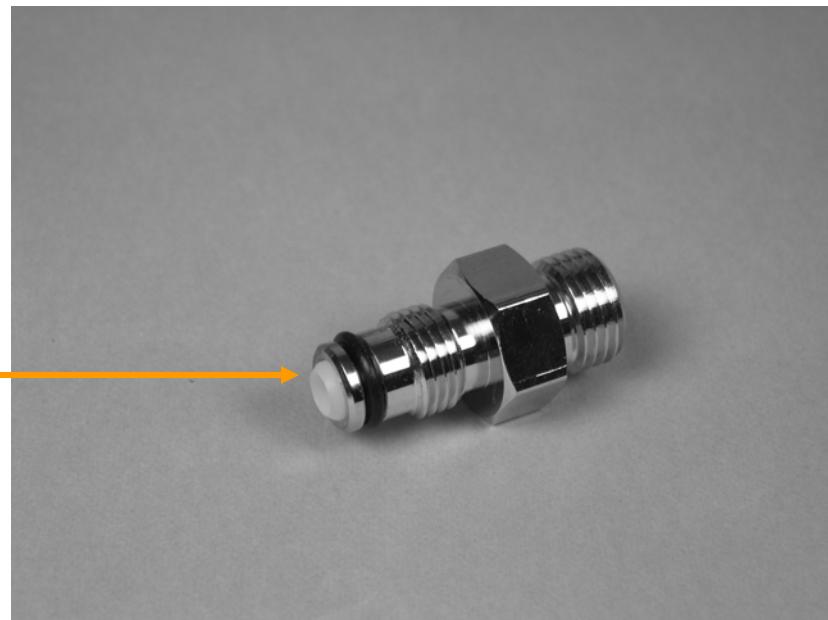
6) Loosen the inlet screw
with an 11/16 inch wrench.

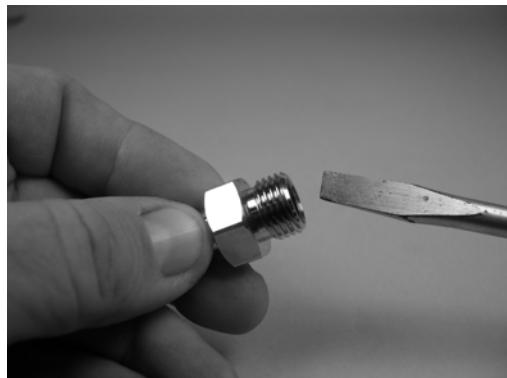




7) Remove the inlet screw.

Take note of the distance the orifice extends from the inlet nipple.

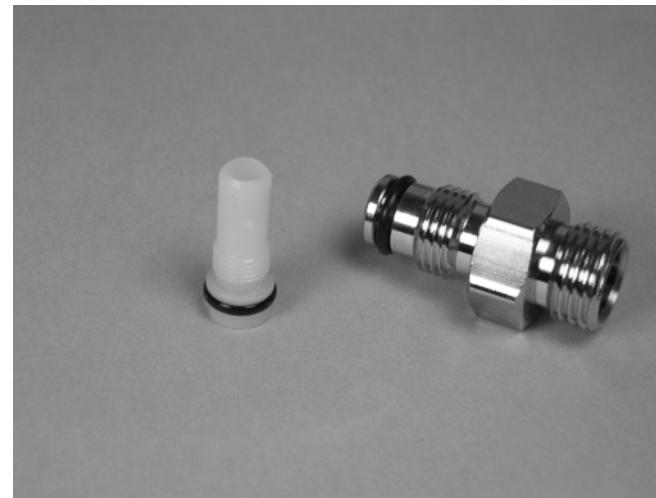


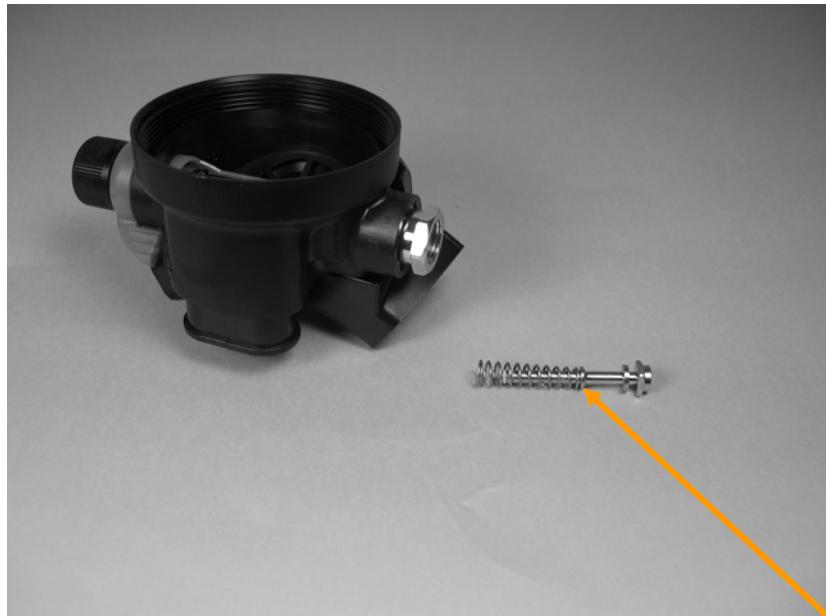


8) Use a flat tipped screwdriver to unscrew the orifice RG1412.

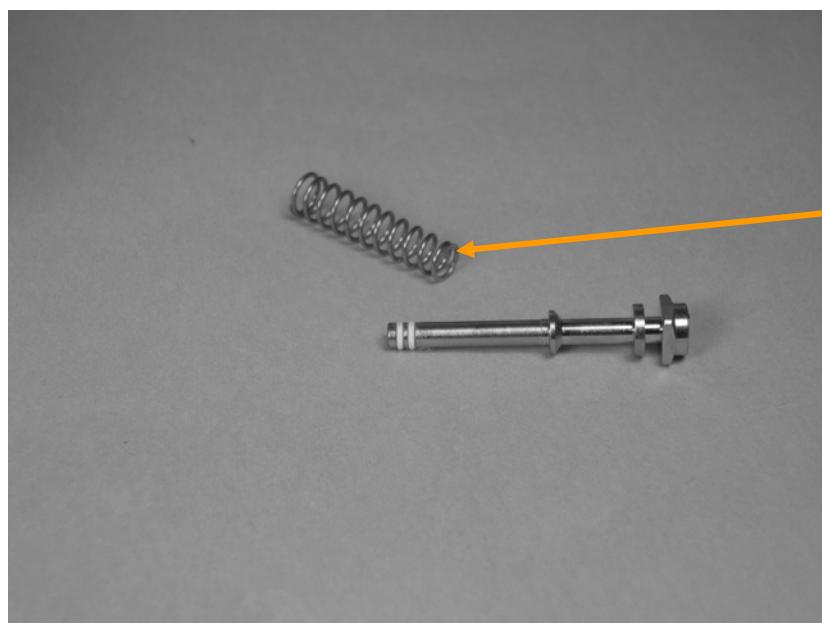


9) It will be necessary to push the orifice out of the inlet screw.





10) Remove the inlet nipple RG1407 and spring.

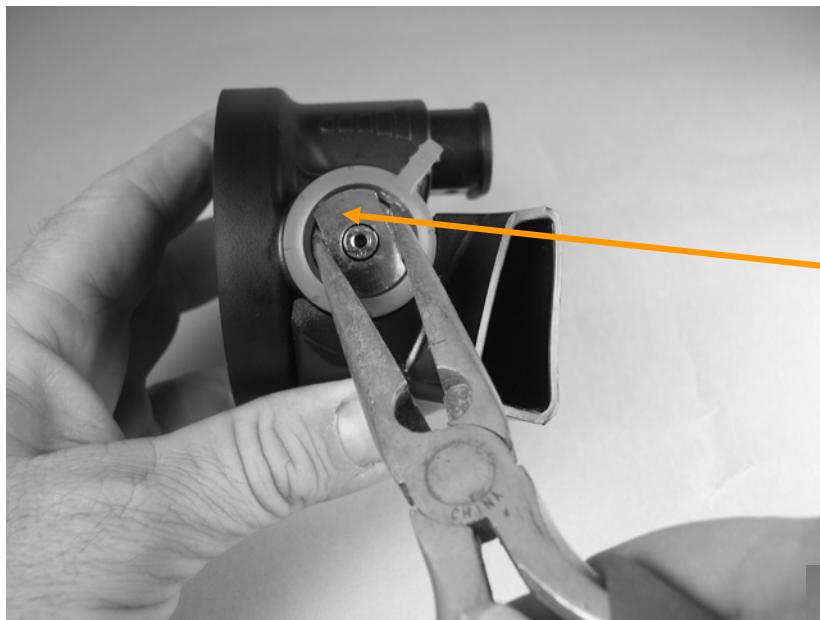


Note that the spring is tapered.

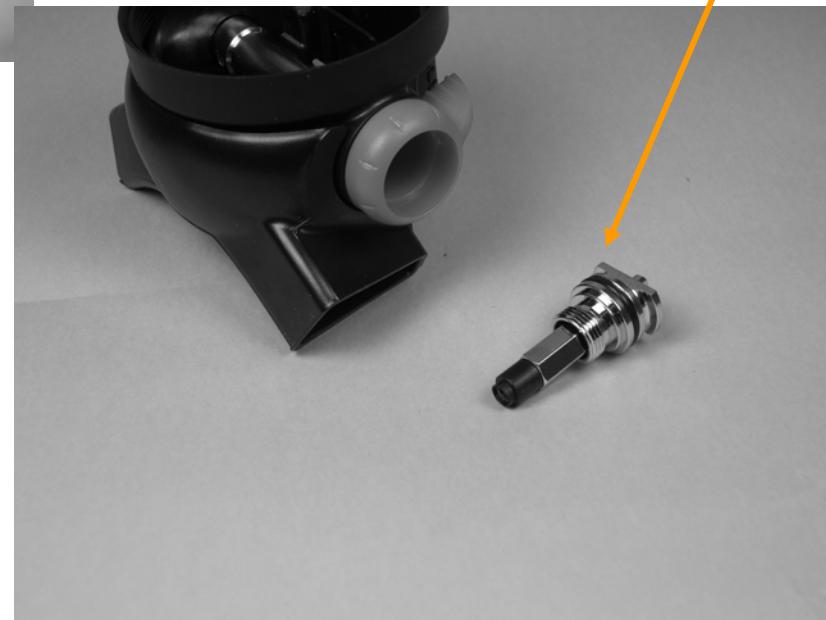


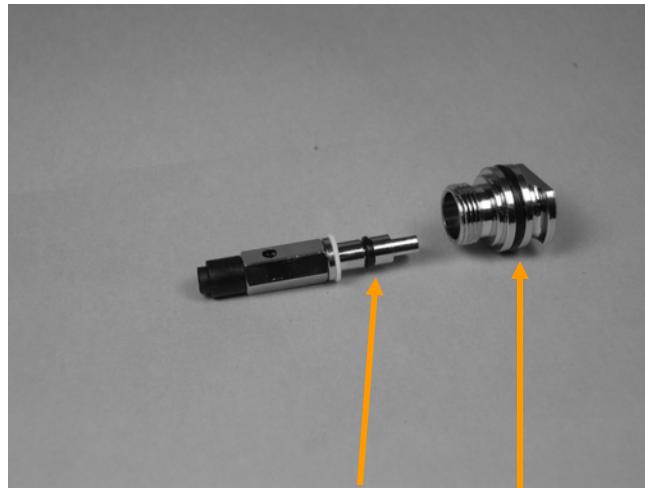
- 11) Remove the decal on the adjustment knob.
- 12) Use a flat tipped screwdriver to loosen the locking screw.



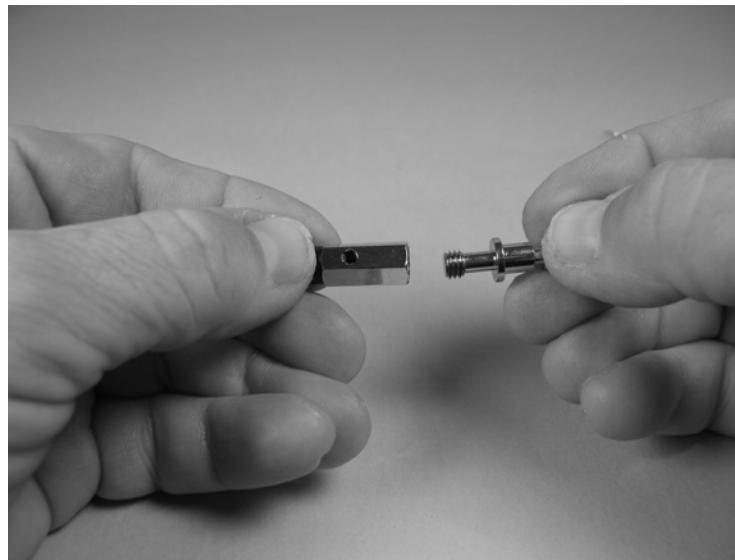


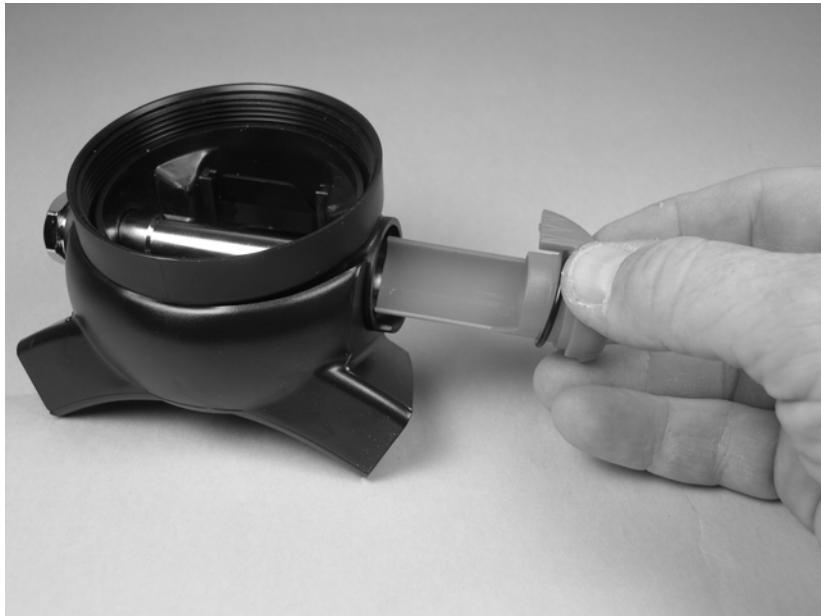
13) Use needle nose pliers to loosen the adjustment tube cap.





- 14) Remove the “O” rings RG1416, RG1404 and teflon washer RG1415 from the adjustment tube cap and adjustment screw.
- 15) The adjustment chamber is reverse threaded; disassemble for cleaning.





16) Remove the venturi.



17) Remove “O” ring RG1428SL.



18) Remove the adjustment tube.



Note the orientation of the opening. It faces the deflector in front of the mouthpiece opening.



19) Remove the exhaust tee.



*Inspect the exhaust diaphragm
replace if necessary RG1251 (not included in
parts kit).*

Warning!!! Only original Dive Rite parts are to be used!

- All parts that are removed from the serviced regulator are to be returned to Dive Rite under warranty guidelines.
- Remaining parts should be cleaned in a solution compatible with Nitrox use.
- All points of lubrication should use a Nitrox compatible lubricant.

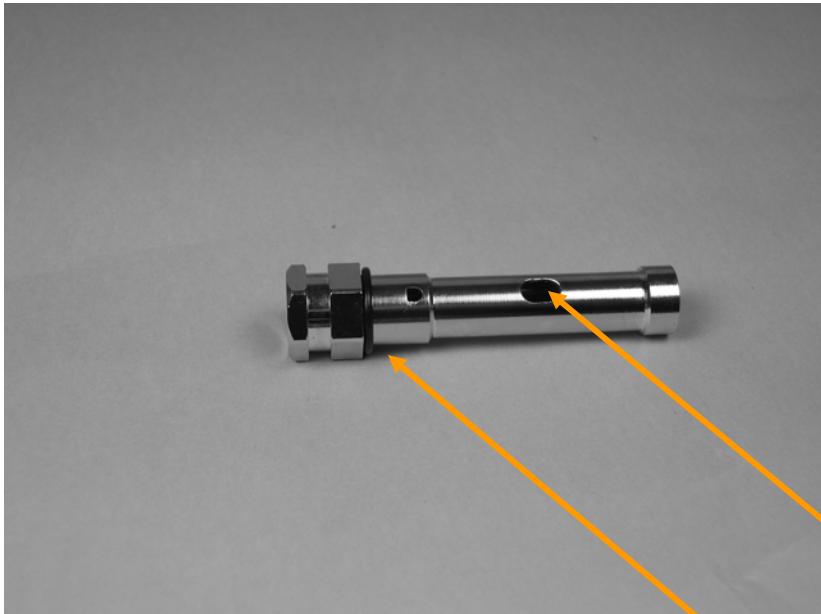
Assembling the RG3000-2





- 1) Install the exhaust diaphragm.
- 2) Install the exhaust tee.

It will be necessary to soak the tee in hot water to make it more pliable, be sure the tee seats under the body edge.



tube opening

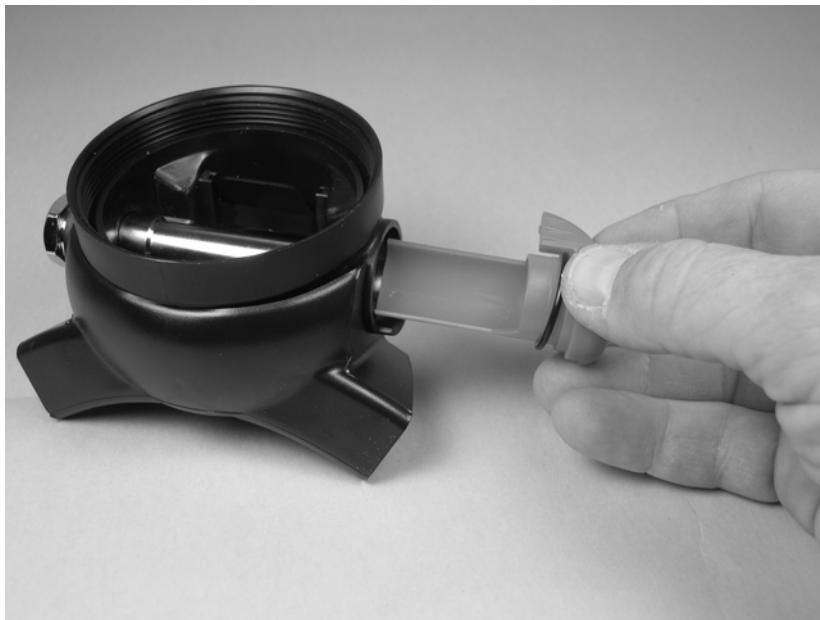
deflector

3) Replace "O" ring RG1404.

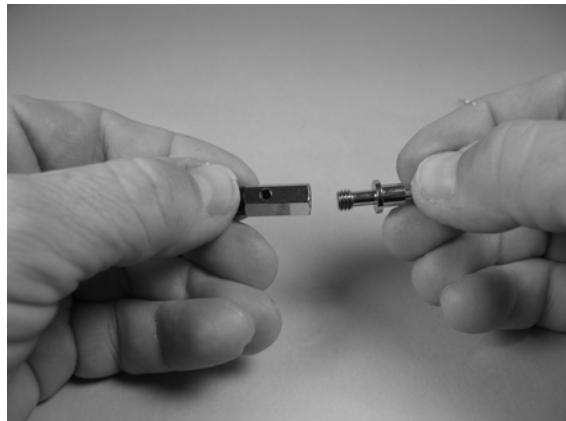
4) Install the adjustment tube into the body, the opening on the tube *MUST* face the deflector.



5) Replace “O” ring RG1428 SL on the venturi.



6) Install into the body; ensure that the lever arm on the venturi is facing the back of the body.



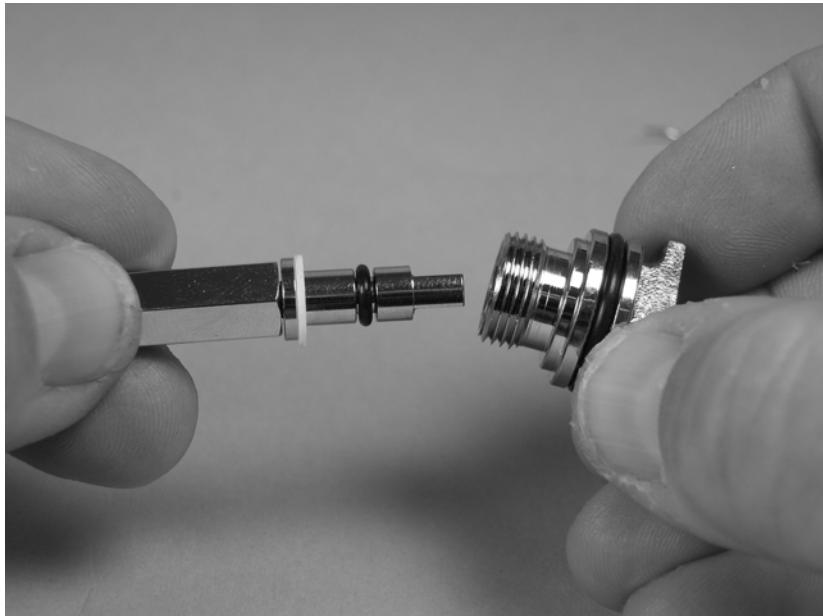
7) Assemble the balance chamber
remember that it is reverse threaded.



8) Replace the “O” ring RG1416
and teflon washer RG1415 on the
adjustment screw.



9) Install the “O” ring RG1404 on the
adjustment tube cap.



10) Install the balance chamber into adjustment tube cap.



11) Install this assembly into the venturi and adjustment tube.



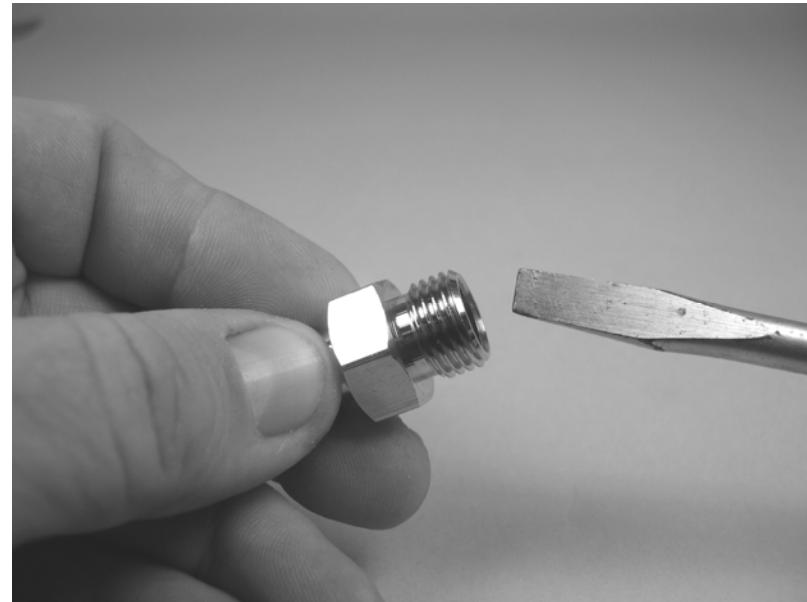
12) Tighten the adjustment tube cap with needle nose pliers.



13) Install the adjustment knob and lock down screw.



14) Secure with a flat head screwdriver.

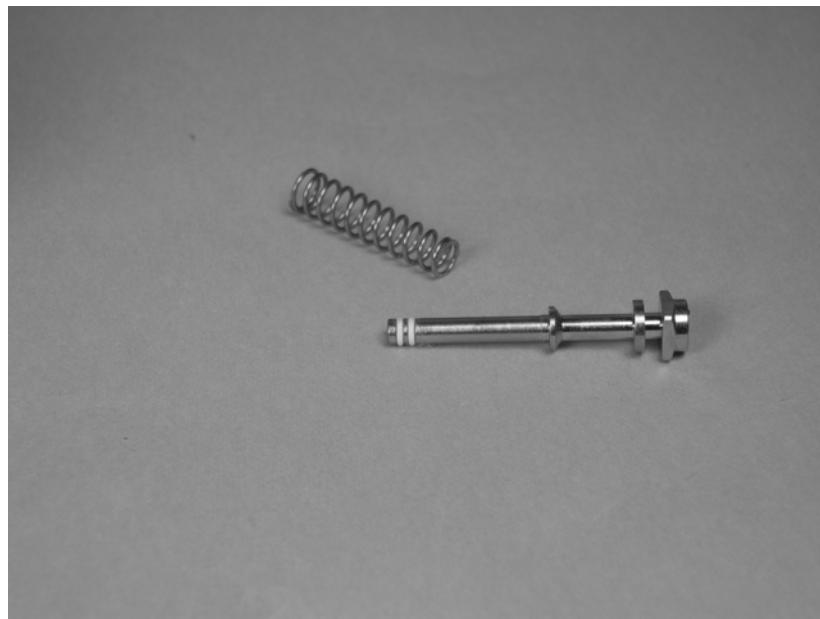


15) Install the orifice RG1412 into the inlet screw, screw the orifice down until the conical edge just meets the edge of the inlet screw.



16) Install the spring onto the inlet nipple.

Note that the spring is tapered and the smaller end seats against the collar of the inlet nipple.





17) Install the spring/inlet nipple assembly into the adjustment tube.



18) Install orifice/inlet screw.



19) Tighten the inlet nipple with an 11/16 inch wrench.



20) Install the lever arm.



21) Install the diaphragm, cover, and locking ring.



The RG3000-2 is now assembled and ready for tuning.



**DO NOT INSTALL THE MOUTHPIECE
AND THE DECAL UNTIL AFTER
TUNING THE REGULATOR
COMPLETELY.**